CLAIMS

WHAT IS CLAIMED IS:

1   1.   A method for controlling download access to content available via a
2   network service, comprising:
3   receiving a content download request from the network service,
4   wherein the content download request includes access information;
5   creating an access ticket object based on the access information,
6   wherein the access ticket object comprises a plurality of ticket fields to store a
7   plurality of access parameters parsed from the access information;
8   retrieving the access ticket object associated with a transaction
9   request using a ticket identifier accompanying the transaction request;
10   authorizing a content download based on the access parameters of
11   the retrieved access ticket object; and
12   delivering the content to a user terminal identified by the access ticket
13   object if the content download is authorized.

1   2.   The method as in Claim 1, wherein creating an access ticket object
2   comprises creating the access ticket object at a download server coupled to the
3   network service via a network.

1   3.   The method as in Claim 2, wherein retrieving the access ticket object
2   comprises fetching the access ticket object from a storage in the download server.

1   4.   The method as in Claim 1, wherein the access parameters comprise
2   user-specific and access-specific parameters.

1   5.   The method as in Claim 4, wherein the access-specific parameters
2   include content access rights identifying an access life cycle.

1   6.   The method as in Claim 5, wherein the access life cycle transcends

2 user session boundaries.

1   7.   The method as in Claim 4, wherein the user-specific parameters

2 include an identification of one or more users authorized to receive the content.

1   8.   The method as in Claim 1, further comprising receiving a confirmation

2 message from the user terminal if the user terminal successfully receives the

3 delivered content.

1   9.   The method as in Claim 8, further comprising modifying the access

2 ticket object to reflect changes in access rights resulting from the successful receipt

3 of the delivered content at the user terminal.

1   10.   The method as in Claim 9, wherein modifying the ticket to reflect

2 changes in the access rights comprises decrementing a permitted download count.

1   11.   The method as in Claim 9, wherein modifying the ticket to reflect

2 changes in the access rights comprises adjusting an access parameter identifying

3 when content may be downloaded.

1   12.   The method as in Claim 9, wherein modifying the ticket to reflect

2 changes in the access rights comprises modifying at least one of a user identifier

3 and an equipment identifier to modify potential recipients of the content that may be

4 downloaded.

1   13.   The method as in Claim 1, further comprising delivering an address of

2 the access ticket object to the requesting service upon creation of the access ticket

3 object.

1   14.   The method as in Claim 1, further comprising storing the access ticket

2 object in persistent storage after creation of the access ticket object, and wherein

3   retrieving the access ticket object comprises retrieving the access ticket object from

4   the persistent storage when the ticket identifier matches an access ticket object

5   address.

1   15.   The method as in Claim 1, further comprising calling a charging

2   element to create a charging record upon delivery of the content to the user

3   terminal.

1   16.   The method as in Claim 1, wherein authorizing the content download

2   comprises authorizing the content download to one or more of the user terminals

3   associated with the ticket identifier of the access ticket object.

1   17.   The method of Claim 1, wherein delivering the content to a user

2   terminal comprises delivering the content via an XML document.

1   18.   The method of Claim 1, further comprising fetching the content from a

2   content storage facility upon authorizing the content download.

1   19.   A download server for controlling access to downloadable content via

2   a network, comprising:

3   a storage module;

4   a service handler configured to receive service requests to download

5   content from a network service, to create and store in the storage module a ticket

6   object having access parameters based on information provided in the service

7   request, and to deliver to the network service a corresponding ticket address of the

8   ticket object in the storage module; and

9   a transaction handler configured to receive download transaction

10   requests identifying the ticket address, to retrieve the ticket object from the storage

11   module based on the ticket address and authorize a download transaction based on

12   the access parameters of the ticket object, and to deliver the content to a user

13   terminal identified by the ticket object upon authorization of the download

14   transaction.

1   20.   The download server as in Claim 19, wherein the transaction handler

2   is further configured to fetch the content corresponding to the transaction request

3   from a content storage facility.

1   21.   The download server as in Claim 19, further comprising a charging

2   handler to call a charging facility to create a charging record upon delivery of the

3   content to the user terminal.

1   22.   The download server as in Claim 19, wherein the storage module is a

2   non-volatile memory.

1   23.   The download server as in Claim 19, wherein the access parameters

2   comprise an access quantity field to identify a number of times in which the

3   download transactions have been authorized.

1   24.   The download server as in Claim 19, wherein the access parameters

2   comprise an access enable field to identify at what times the download transactions

3   have been authorized.

1   25.   The download server as in Claim 19, wherein the access parameters

2   comprise an end-user identification field to identify the end-users to which the

3   content associated with the download transaction has been authorized.

1   26.   The download server as in Claim 25, wherein the end-user

2   identification field comprises a user name.

1   27.   The download server as in Claim 25, wherein the end-user

2   identification field comprises a user terminal identifier.

1   28.   The download server as in Claim 27, wherein the user terminal

2   identifier is a Mobile Station ISDN/PSTN Number (MSISDN).

1   29.   A system for controlling access to downloadable content via a network,

2   comprising:

3   (a)   a user terminal to initiate content download requests;

4   (b)   a network service module to receive the content download requests

5   and initiate service requests in response thereto;

6   (c)   a download server coupled to the network service to receive the

7   service requests, the download server comprising:

8   (i)   a storage module;

9   (ii)   a service handler configured to create and store in the storage

10   module a ticket object having access parameters based on information

11   provided in the service request, and to deliver to the network service module

12   a corresponding ticket address of the ticket object in the storage module;

13   (iii)   a transaction handler configured to receive download

14   transaction requests identifying the ticket address, to retrieve the ticket object

15   from the storage module based on the ticket address and authorize a

16   download transaction based on the access parameters of the ticket object,

17   and to deliver the content to a user terminal identified by the ticket object

18   upon authorization of the download transaction.

1   30.   The system as in Claim 29, further comprising a content storage

2   facility to store the content corresponding to the download transactions.

1   31.   The system as in Claim 29, wherein the download server further

2   comprises a charging handler to initiate a charging call upon delivery of the content

3   to the user terminal.

1   32.   The system as in Claim 31, further comprising a charging facility to

2   create a charging record in response to the charging call from the charging handler.

1   33.   A system for controlling download access to content available via a

2   network service, wherein the network service initiates a content download request

3   including access information, the system comprising:

4   means for creating an access ticket object based on the access

5   information, wherein the access ticket object comprises a plurality of ticket fields to

6   store a plurality of access parameters parsed from the access information;

7   means for retrieving the access ticket object associated with a

8   transaction request using a ticket identifier accompanying the transaction request;

9   means for authorizing a content download based on the access

10   parameters of the retrieved access ticket object; and

11   means for delivering the content to a user terminal identified by the

12   access ticket object if the content download is authorized.

1   34.   A computer-readable medium having computer-executable instructions

2   for controlling access to downloadable content available via a network service, the

3   computer-executable instructions performing steps comprising:

4   receiving a content download request from the network service,

5   wherein the content download request includes access information;

6   creating an access ticket object based on the access information,

7   wherein the access ticket object comprises a plurality of ticket fields to store a

8   plurality of access parameters parsed from the access information;

9   retrieving the access ticket object associated with a transaction

10   request using a ticket identifier accompanying the transaction request;

11   authorizing a content download based on the access parameters of

12   the retrieved access ticket object; and

13   delivering the content to a user terminal identified by the access ticket

14   object if the content download is authorized.

1   35.   A method for controlling download access to a terminal to content

2   available via a network service, comprising:

3   creating an access ticket based on user access information provided

4   by the network service;

5   notifying the terminal of a ticket address corresponding to a stored

6   location of the access ticket;

7   creating a transaction upon receipt of a transaction request including

8   the ticket address from the terminal; and

9   providing requested content to the terminal for each one or more

10   transaction requests identifying the transaction sent from the terminal.

1   36.   The method of Claim 35, wherein creating the access ticket comprises:

2   receiving a content download request from the network service,

3   wherein the content download request includes the user access information;

4   parsing the content download request to obtain the user access

5   information; and

6   creating the access ticket based on the user access information.

1   37.   The method of Claim 35, wherein notifying the terminal of a ticket

2   address comprises:

3   creating a document including the ticket address; and

4   sending the document to the network service for use by the terminal.

1   38.   The method of Claim 35, wherein creating a transaction upon receipt

2   of a transaction request comprises:

3   fetching the access ticket corresponding to the ticket address provided

4   in the transaction request;

5   creating the transaction if the access ticket is valid; and

6   providing a transaction identifier corresponding to the created

7   transaction to the terminal.

1   39.   The method of Claim 38, wherein providing requested content to the

2   terminal comprises providing the requested content to the terminal upon creation of

3   the transaction.

1   40.   The method of Claim 39, wherein providing requested content to the

2   terminal further comprises providing the requested content to the terminal in

3   response to subsequent transaction requests including the transaction identifier.

1   41.   A method for controlling download access to content available via a

2   network service, comprising:

3   receiving a content download request from the network service,

4   wherein the content download request includes access information;

5   creating a ticket based on the access information, wherein the ticket

6   comprises a plurality of ticket fields to store a plurality of access parameters parsed

7   from the access information;

8   storing the ticket;

9   providing a ticket address of the ticket to the service for use by a

10   terminal;

11   receiving a first transaction request including the ticket address from

12   the terminal;

13   retrieving the ticket corresponding to the ticket address;

14   creating a transaction based on the ticket, wherein the transaction is

15   associated with a transaction identifier;

16   retrieving targeted content identified in the first transaction request;

17   receiving subsequent transaction requests including the transaction

18   identifier from the terminal;

19   retrieving the transaction identified by the transaction identifier; and

20   retrieving targeted content identified in the subsequent transaction

21   requests.

1   42.   The method as in Claim 41, further comprising providing the

2   transaction identifier to the terminal via a cookie.

1   43.   The method as in Claim 41, further comprising providing the

2   transaction identifier to the terminal via URL encoding.